

CLAIMS

1. An opposite end surface truing device for truing grinding surfaces at opposite ends of a grinding wheel with an opposite end surface truing tool by relatively moving the grinding wheel and the opposite end surface truing tool being rotated respectively, in a first direction and a second direction transverse thereto, wherein the opposite end surface truing tool has a first end surface truing section composed of a cylindrical first base body which protrudes bodily from a circumferential portion at one end surface of a disc-like base coaxially with the rotational axis of the same and a first abrasive grain layer in which numerous diamond abrasive grains are adhered with bond material to an external surface of the first base body, and a second end surface truing section composed of a cylindrical second base body which protrudes bodily from a circumferential portion at the other end surface of the base coaxially with the rotational axis and a second abrasive grain layer in which numerous diamond abrasive grains are adhered with bond material to an internal surface of the second base body and wherein the rotational axis of the opposite end surface truing tool is inclined relative to the rotational axis of the grinding wheel within almost the same plane at a predetermined inclination angle.

2. An opposite end surface truing tool having cylindrical end surface truing sections secured coaxially on circumferential portions at opposite end surfaces of a disc-like base rotatable about a rotational axis for truing grinding surfaces at opposite ends of a grinding wheel, wherein a first end surface truing section is composed of a cylindrical first base body which protrudes bodily from a circumferential portion at one end surface of a disc-like base coaxially with the rotational axis of the same and a first abrasive grain layer in which

numerous diamond abrasive grains are adhered with bond material to an external surface of the first base body, and wherein a second end surface truing section is composed of a cylindrical second base body which protrudes bodily from a circumferential portion at the other end surface of the base coaxially with the rotational axis and a second abrasive grain layer in which numerous diamond abrasive grains are adhered with bond material to an internal surface of the second base body.

3. The opposite end surface truing tool as set forth in Claim 2, wherein each of the abrasive grain layers has a single layer of the diamond abrasive grains.

4. The opposite end surface truing tool as set forth in Claim 2, wherein the bond material is a brazing material having a strong affinity for diamond and wherein a plurality of pores are formed in the brazing material.

5. The opposite end surface truing tool as set forth in any one of Claims 2 to 4, wherein a disc-like circumferential surface truing section is coaxially provided on the external surface of the base for truing a circumferential surface of the grinding wheel, and wherein the circumferential surface truing section is composed of a disc-like third base body which protrudes bodily from the external surface of the base in a radial direction and a third abrasive grain layer in which numerous diamond abrasive grains are adhered with bond material to one end surface of the third base body.

6. An opposite end surface truing method for truing grinding surfaces at opposite ends of a grinding wheel with the opposite end surface truing device as set forth in Claim 1, the method comprising the steps of rotating the opposite end surface truing tool in a direction opposite to the rotational direction of the grinding wheel; moving the opposite end surface truing tool toward the

rotational axis of the grinding wheel so that the first abrasive grain layer at an end edge of the first end surface truing section trues the grinding surface at one end of the grinding wheel as it goes ahead of the first base body; rotating the opposite end surface truing tool in the same direction as the rotational direction of the grinding wheel; and moving the opposite end surface truing tool toward the rotational axis of the grinding wheel so that the second abrasive grain layer at an end edge of the second end surface truing section trues the grinding surface at the other end of the grinding wheel as it goes ahead of the second base body.